

W. Scott Randolph
Director – Regulatory Affairs



Verizon Communications
1300 I Street
Suite 500E
Washington, DC 20005

Phone: 202 515-2530
Fax: 202 336-7922
Srandolph@verizon.com

September 13, 2002

Ms. Marlene H. Dortch
Secretary
Federal Communications Commission
445 Twelfth Street, S.W.
Washington, DC 20554

**Re: Review of the Section 251 Unbundling Obligations of Incumbent Local
Exchange Carriers – CC Docket no. 01-338**

**Implementation of the Local Competition Provisions in the
Telecommunications Act of 1996 - CC Docket No. 96-98**

**Deployment of Wireline Services Offering Advanced Telecommunications
Capability – CC Docket No. 98-147**

Dear Ms. Dortch:

On September 12, 2002, Charles Kiederer, John White, Mike Nawrocki, Augie Trinchese, Ed Shakin, and the undersigned met with the staff of the Wireline Competition Bureau and the Office of Plans and Policy to discuss AT&T's Electronic Loop Provisioning (ELP) proposal and ILEC obligations to provide unbundled switching and the UNE platform.

Attendees from the Wireline Competition Bureau were Tom Navin, Jeremy Miller, Rob Tanner, Julie Veach, Alvaro Gonzalez, and Jeremy Marcus. Participating from the Office of Plans and Policy were Simon Wilke and Donald Stockdale.

Verizon representatives explained why AT&T's ELP proposal is an unwarranted, massively expensive, and counter-productive solution to a non-existent problem and should be viewed as an AT&T ruse to ensure that the UNE platform remains available in perpetuity. It is not necessary for the Commission to consider ELP-type approaches as a prerequisite for eliminating the UNE switching element or the UNE platform. Facilities based residential local competition is alive and well today without the use of either unbundled switching or ELP. CLECs serve more than three million residential lines using their own switches and the Commission has repeatedly found that ILECs can convert lines to CLEC switches in a manner that affords competitors a "meaningful opportunity to compete."

Requiring ILECs to implement AT&T's ELP scheme would be detrimental to the development of the nation's telecommunications infrastructure - the technology required does not presently exist in any ILEC's network and is far from incremental. It would require a total rebuild of the entire copper loop network at an astronomical cost of tens of billions of dollars for Verizon alone. In fact, ELP would perpetuate reliance on a narrowband copper network, would impede a natural migration to the next generation of switching technology and would preclude any prospect of deploying fiber closer to the home for the foreseeable future. AT&T is wrong when it claims that

ELP is analogous to the ILEC's 1980's obligations to implement equal access for long distance. Equal access simply involved software upgrades to existing switches, not the construction of a completely new wireline network.

The attached materials were used in the meeting.

Pursuant to Section 1.1206(a)(1) of the Commission's rules, an original and one copy of this letter are being submitted to the Office of the Secretary. Please associate this notification with the record in the proceedings indicated above. If you have any questions regarding this matter, please call me at (202) 515-2530.

Sincerely,

A handwritten signature in black ink, appearing to read "W. Scott Randolph", with a stylized flourish at the end.

W. Scott Randolph

Attachment

cc: Tom Navin
Jeremy Miller
Rob Tanner
Julie Veach
Alvaro Gonzalez
Jeremy Marcus
Simon Wilke
Donald Stockdale

Electronic Loop Provisioning: Myth and Reality

AT&T has been touting “electronic loop provisioning” as a logical, incremental step that is necessary to enable mass market competition. It is nothing of the sort. Electronic loop provisioning is an unwarranted, massively expensive, and counter-productive solution to a non-existent problem. Regulators should promptly and forcefully reject this latest thinly veiled attempt to ensure that the UNE platform remains available in perpetuity. Just as important, regulators should recognize and dismiss AT&T’s effort to use unsupported claims of “hot cut problems” as a vehicle to require the ILECs to build a new network architecture that would extend a “platform” requirement to the highly competitive broadband data market.

Myth: Because of problems with hot cuts, electronic loop provisioning is critical to mass market local exchange competition and a pre-condition to eliminating the UNE platform.

Reality: Facilities based mass market local competition is alive and well today without the use of either unbundled switching or electronic loop provisioning.

- Switch-based local exchange competitors already serve more than three million mass market lines.
- ILEC hot-cut performance is routinely excellent – in every single approved Section 271 application, the FCC has found that ILECs perform hot cuts in a manner that afford competitors a “meaningful opportunity to compete.” And performance has remained high in the face of ever-increasing hot-cut volumes. For example, the volume of hot-cut lines for key states in Verizon-East increased significantly between 2000 and 2001 (14.4 percent in New York, 40 percent in Massachusetts, 26 percent in Pennsylvania, and 146 percent in New Jersey). Even so, our on-time performance has been maintained on average at 98 percent.
- AT&T has conceded that ILECs efficiently and effectively cut over loops on a “project” basis for business customers – and the same could hold true in the mass market, notwithstanding AT&T’s unsupported claims to the contrary. Broadview, which serves residential customers and small-to-medium sized businesses, also confirms that migrating customers on a project basis is successful.
- Cable telephony routinely achieves penetration rates of 25-30 percent and will grow dramatically in availability and market share over the next three years, assuming regulatory policies promote rather than discourage facilities-based competition. (Cable’s Program Extends Beyond TV, Investors Business Daily, May 16, 2002.)
- Wireless services compete with wireline telephony, capturing billions of minutes of use and millions of primary and secondary lines. In fact, wireless carriers predict that they will achieve a *majority share* of the local exchange market over the next decade.

Myth: Electronic loop provisioning employs readily available technology and is “incremental” to current investment in next generation digital loop carrier (NGDLC).

Reality: The technology required to implement electronic loop provisioning is not deployed in Verizon's or any other ILEC's network and is far from incremental.

- Implementing electronic loop provisioning would require the deployment of an ATM switch and voice-over-ATM gateway in each and every Class 5 office as well as massive upgrades to the local loop portion of the network.
- Even AT&T estimates that electronic loop provisioning would cost more than \$ 17 billion, and its estimate is grossly understated for *Verizon alone*. In New York, just the access piece of AT&T's proposed architecture is estimated to cost approximately \$ 10 billion, and the company-wide cost of the necessary outside plant and central office upgrades is estimated at several *tens of billions* of dollars.
- Switch-based CLECs would incur substantial costs as well, since they would have to deploy TDM-to-ATM conversion capabilities or render worthless their installed based of 1300 circuit switches.
- Rather than a vehicle to migrate customers off ILEC switches, electronic loop provisioning would require ILECs to deploy new packet switches and provide a switching platform in perpetuity.
- Electronic loop provisioning extends the provision of a UNE platform capability to the highly competitive broadband data market, by essentially providing CLECs with a combination of, yet unbuilt capabilities, over which they can provided data services without investing in facilities. From a public policy perspective this approach would further undermine any incentive for competitors to deploy their own facilities and would further impede the ILECs' ability to compete with the dominant providers of cable modem service.

Myth: Electronic loop provisioning will improve network infrastructure, promote network evolution, and reinvigorate investment.

Reality: Electronic loop provisioning would be inconsistent with forward-looking technology.

- AT&T's proposed architecture perpetuates a narrowband access network rather than migrating to a network that extends fiber closer to the home. Moreover, given the massive investment that would be required, AT&T's proposal precludes any prospect of deploying fiber to the curb or to the home for the foreseeable future.
- By requiring ATM switches in every central office, electronic loop provisioning would slow the migration to more modern and efficient softswitch technology.
- Electronic loop provisioning undercuts the Act's core goal of facilities-based competition by inserting an ILEC switch into every CLEC loop.

- The mythical hot-cut “problem” aside, nothing precludes AT&T and other UNE-P CLECs from implementing the technology underlying electronic loop provisioning as their switching/data platform. If the platform is as efficient as AT&T claims then regulators should question why they have not done so already.

Myth: Electronic loop provisioning is analogous to the implementation of equal access in the long distance market.

Reality: The investment required to implement electronic loop provisioning would be orders of magnitude greater than was required to implement equal access.

- Electronic loop provisioning essentially requires a complete re-design of the public switched telephone network, touching every deployed loop (not just working loops or loops requiring hot cuts).
- While equal access was completed in a relatively short period of time, the conversion to ELP will take an infinite amount of time and potentially never be at a point where it would have an impact on the hot cut process.
- Equal access involved only software upgrades to existing digital switches, while electronic loop provisioning would entail the addition of new hardware to every single loop and Class 5 office.
- Equal access expenditures were approximately \$ 2.6 billion – a far cry from the hundreds of billions of dollars that would be necessary to implement electronic loop provisioning.
- ILECs were authorized to recover their equal access network reconfiguration costs through charges imposed on IXC's. AT&T is silent as to its willingness to pay for the costs of upgrading networks to provide electronic loop provisioning – and, based on past practice, it is sure to claim that it is under no such obligation.

Myth: The Commission has legal authority to mandate electronic loop provisioning.

Reality: There is no statutory basis for imposing an obligation to implement electronic loop provisioning.

- Competitors are not impaired in providing mass market local exchange services without access to unbundled local switching in the absence of electronic loop provisioning.
- The Commission cannot compel ILECs to provide access to a superior, as-yet unbuilt network.



*Technical Review
of
AT&T's Electronic Loop Provisioning (ELP)
Proposal*

Verizon/FCC Meeting

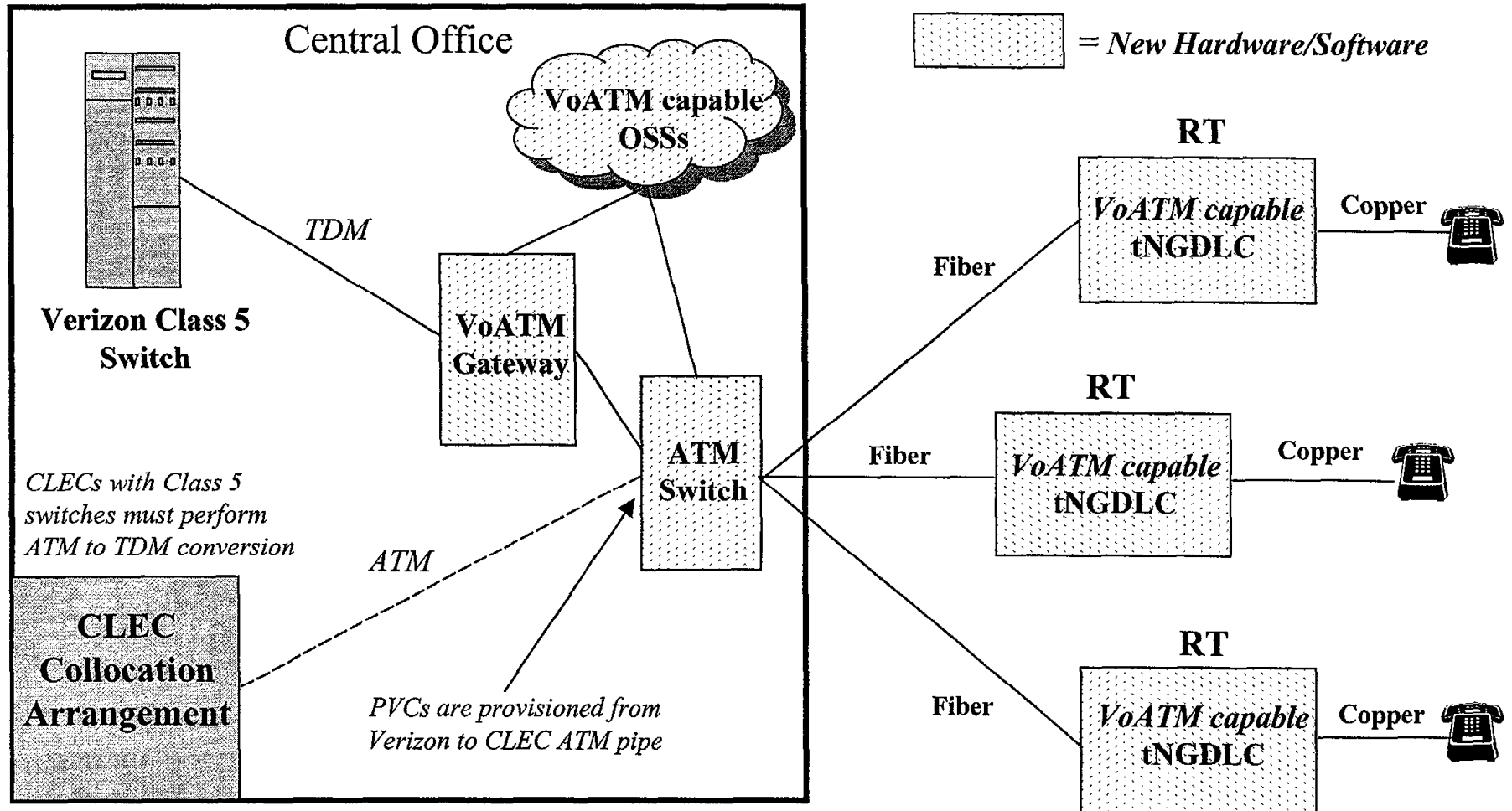
September 12, 2002

Technical Overview



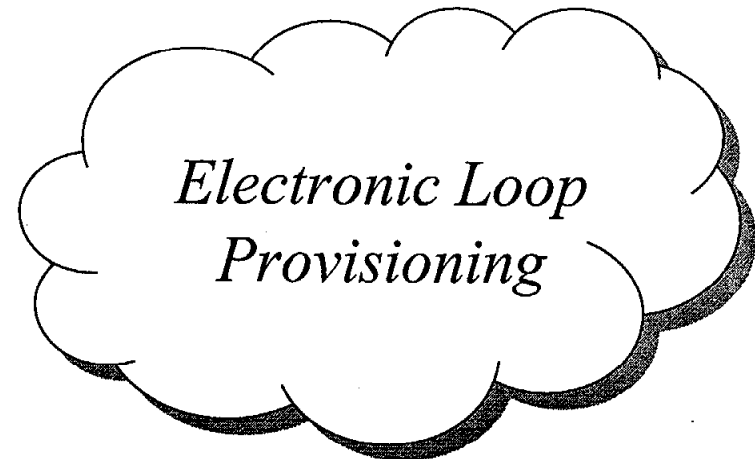
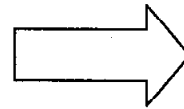
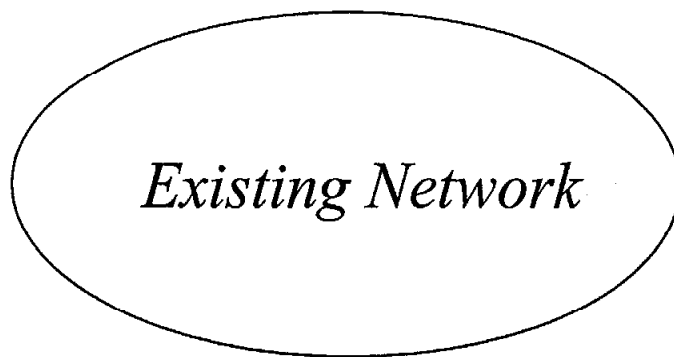
- Technology required for ELP is *not* deployed in Verizon's Loop Access network or Class 5 offices.
- Implementation of an ELP architecture is not consistent with Verizon's long term network evolution plans.
- ELP will slow migration to the next generation switching network and runs counter to a strategy of deploying fiber further into the network.
- The costs to implement ELP are *not* incremental – ELP requires a *total rebuild* of the copper loop network.
- ELP would impact *all* switch-based carriers, including CLECs who have deployed circuit-based switches.
- Even in broadest terms, ELP is *not* analogous to the implementation of equal access for long distance.

ELP Proposed Architecture



AT&T's Proposed Architecture for Electronic Loop Provisioning

ELP Requires New Technology



- Access network is predominantly copper loops (~80%)
- Remaining lines are mixture of NGDLC and legacy DLC (~20%)
- Voice traffic terminates on the switch over analog loops or TDM-based DLC
- Class 5 switches perform circuit switching and utilize TDM-based facilities for trunking

- New ATM based *tNGDLC* required for every deployed loop
- *ATM Module* required in C.O. to terminate VoATM traffic
- *Gateway devices* required in every C.O. to convert ATM traffic to TDM (for Class 5 switches)
- *New OSSs* must support VoATM applications
- Requires cut-over of all existing loops and loop services to new platform

ELP has Wide Array of Impacts



- Impact of ELP is not isolated to CLECs desiring ATM connectivity
 - ◆ Switch-based CLECs (using circuit switches) are impacted by the need to convert ATM to TDM
- Cost of conversion and stranding of existing digital switch investment
- Front end ordering/provisioning systems would need to be modified to accommodate VoATM capabilities
- Line Side Gateway functionality required for VoATM (related to hundreds of Class 5 features) not yet fully developed

ELP Inconsistent with Network Evolution



Electronic Loop Provisioning assumes...

- VoATM Transport in the Local Loop
- Evolution of Class 5 Switches to ATM
- ATM Gateways support Line Side Switch Features
- Insertion of ILEC Switch functionality into every CLEC loop

ELP is not consistent with Verizon's View of Next Generation Architecture because...

- VoATM approach prejudices Verizon's view of next generation switching
- New ATM-based tNGDLC perpetuates electronics in the loop
- ATM conversion at NGDLC runs counter to the goal of deploying fiber closer to the customer
- ELP places artificial limits on Verizon's ability to evolve the local access network in the most efficient manner

ELP has Prohibitive Cost Impacts



ELP Requires Outside Plant and C.O. Upgrades estimated at tens of billions of dollars...

- Total rebuild of existing *copper and DLC* access network with ATM-based tNGDLC
- ATM Switches (or Modules) must be deployed in every C.O. to terminate voice-over-ATM (VoATM) traffic
- ATM/TDM Gateways must be deployed in every C.O. to convert VoATM traffic back to TDM
- Existing analog line units on Class 5 switches are stranded and must be replaced with new digital line units to terminate traffic from Gateways
- New OSSs must be developed and deployed to support VoATM capabilities in Class 5 offices
- Could not be accomplished in any reasonable timeframe

ELP is not Analogous to Equal Access



- Equal Access accomplished through software upgrades to existing switches – approximately \$2.6B expenditures
- ELP requires deployment of new network elements in the access network and central office – estimated to cost *tens of billions* of dollars
- Costs associated with Equal Access applied to working lines – ELP inherently applies to every deployed loop
- ELP forces the cost of implementation to the entire ILEC network – not just loops requiring hot cuts
- Equal Access capabilities implemented without the need to rebuild the entire loop plant – ELP unnecessarily places service risks related to conversion on every Verizon/CLEC customer
- Equal Access was *switch* based – ELP assumes rebuild of *loop* network

Summary



- ELP requires *rebuild* of the loop access network with *prohibitive* capital and expense investments.
- ELP inappropriately applies the cost and impact of implementation to all deployed loops.
- Network evolution is hampered by a *preemptive and unnecessary* conversion of outside plant infrastructure to VoATM.
- Long term network strategy for fiber to the customer and Verizon's view of next generation network is not supported by an ELP approach.
- ELP has *no* fundamental relationship to Equal Access. When compared to EA, there are far greater costs and network impacts of implementing an ELP strategy for hot cuts.
- Existing UNE Loop Provisioning Process works well and renders ELP unnecessary.